

**INSPECTORATE**

A Bureau Veritas Group Company

ISO 9001:2008 Certified

Certificate of Analysis

Vessel / Shore Tank : Tank 30004
 Product : #6 Fuel Oil
 Client Reference :
 Terminal / Port / Office : SPRAGUE RIVER ROAD
 Job ID : 0020-0003201
 Sample Details : After "Portland Bunker 1"
 Comments :

Sample Submitted By : IAC Portland
 Analysis Performed By : IAC Portland
 Date Sampled : 19-Oct-2010
 Date Reported : 20-Oct-2010
 Submission ID : 2010-020-00871

Sample Number		2010-020-00871-005	
Method	Test	Result	Specification
ASTM D287	API Gravity, ° API-U,M,L Calc Avg	14.4	
ASTM D1250	Density at 15°C	0.9693	
ASTM D4294	Sulfur Content, mass %-U,M,L Calc Avg	1.23	
ASTM D445	Test Temperature	50°C (122°F)	
	Kinematic Viscosity, cSt-U,M,L Calc Avg	407.7	
ASTM D2161	Test Temperature, ° F	122	
	Saybolt Furol Seconds, sec	192.4	
ASTM D95	Water, % (v/v)	0.00	
ASTM D473	Sediment Content, mass % / vol %	0.01 / 0.01	
ASTM D1796	Water and Sediment, % (v/v)	0.200	
ASTM D93 Proc. B	Manual / Automated	Automatic	
	Flash Point, ° C / ° F	100.0 / 212	
ASTM D482	Ash Content, mass %	0.0196	
IP 470	Aluminum, ppm (mg/kg)	16	
	Silicon, ppm (mg/kg)	26	
	Sodium, ppm (mg/kg)	20	
	Vanadium, ppm (mg/kg)	12	
ASTM D5762	Nitrogen, ppm % WT	0.2835	
ASTM D240	Gross Heat of Combustion, BTU/lb	18666	
	Unit Conversion, BTU/gal	150765	
ASTM D4530	Carbon Residue, % (m/m)	9.30	
ASTM D97	Pour Point, ° C / ° F	3 / 37	
ASTM D6560	Asphaltenes, % (m/m)	1.5	
ASTM D287	API Gravity, ° API		
	Upper	14.5	
	Middle	14.3	
	Lower	14.3	
ASTM D4294	Sulfur Content, mass %		
	Upper	1.23	
	Middle	1.24	
	Lower	1.23	
ASTM D445	Kinematic Viscosity, cSt		
	Upper	409.0	
	Middle	406.9	
	Lower	407.1	

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For Inspectorate: Signature On File

Rick Kennedy,